



444 South 16th Street Mall
Omaha NE 68102-2247

August 1, 2005
LIC-05-0090

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

- References:
1. Docket No. 50-285
 2. Letter from Bruce A. Boger (NRC) to Ross Ridenoure (OPPD) dated September 13, 2004, NRC Generic Letter 2004-02: Potential Impact Of Debris Blockage On Emergency Recirculation During Design Basis Accidents At Pressurized-Water Reactors (NRC-04-0115)
 3. Letter from Ralph L. Phelps (OPPD) to Document Control Desk (NRC) dated March 4, 2005, 90 Day Response to Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors" (LIC-05-0017)
 4. Letter from Alan B. Wang (NRC) to Ross Ridenoure (OPPD) dated June 3, 2005, Request for Additional Information (RAI) Related to Generic Letter 2004-02, Potential Impact Of Debris Blockage On Emergency Recirculation During Design Basis Accidents At Pressurized-Water Reactors (TAC No. MC4686) (NRC-05-077)

SUBJECT: Fort Calhoun Station Unit No. 1, Response to Request for Additional Information Related to Generic Letter 2004-02, Potential Impact Of Debris Blockage On Emergency Recirculation During Design Basis Accidents At Pressurized-Water Reactors

In Reference 3, the Omaha Public Power District (OPPD) provided information in response to Reference 2. In Reference 4, the NRC requested additional information concerning Reference 3. OPPD is providing the requested information as Attachment 1 to this letter.

This letter contains the following commitment:


- The chemical effect evaluation approach will be summarized in our September 1, 2005, response to Reference 2.

I declare under penalty of perjury that the forgoing is true and correct. (Executed on August 1, 2005.)

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If you have any questions or require additional information, please contact Thomas R. Byrne at (402) 533-7368.

Sincerely,



D. J. Bannister
Manager – Fort Calhoun Station

DJB/TRB/trb

Attachment 1 - Response to Request for Additional Information Related to Generic Letter
2004-02, Potential Impact Of Debris Blockage On Emergency
Recirculation During Design Basis Accidents At Pressurized-Water
Reactors

Attachment 1

Response to Request for Additional Information Related to Generic Letter 2004-02, Potential Impact Of Debris Blockage On Emergency Recirculation During Design Basis Accidents At Pressurized-Water Reactors

Attachment 1

Response to Request for Additional Information Related to Generic Letter 2004-02, Potential Impact Of Debris Blockage On Emergency Recirculation During Design Basis Accidents At Pressurized-Water Reactors

NRC Question 1:

In your 90-day response to [Generic Letter] GL 2004-02, you indicated that you intend to use future test results, industry guidance, and NRC guidance to account for chemical precipitants in your evaluation and their availability will impact the schedule for performing an evaluation. The cooperative NRC-Electric Power Research Institute tests in progress at the University of New Mexico are designed to determine if chemical effects occur, but are not designed to measure head loss associated with any chemical effects. The staff notes that some chemical effects have been observed in the initial three tests.

For addressing chemical effects, you state the evaluation may occur after the September 1, 2005, response due date, depending on the schedule for testing and the availability of industry guidance. This is contrary to the information request in GL 2004-02, which requests that chemical effects be addressed in the September 1, 2005, response. This delay is also contrary to the staff's position that there are sufficient bases to address sump vulnerability to chemical effects and that the September response will be incomplete if the evaluation is incomplete, the design is not complete, or there is no schedule for upgrades. In this light, please discuss your plans and schedule for evaluating chemical effects. In addition, please discuss any plans for performing testing to support your evaluation of this effect.

OPPD Response:

OPPD provided the required 90-day response to GL 2004-02 based on information available at that time. Subsequent to submitting the 90-day response, additional information has become available pertaining to chemical effects.

Recent cooperative NRC-EPRI Integrated Chemical Effects Testing (ICET) indicates that precipitant could be formed during long term post-LOCA recirculation operation. The effects of this precipitant on screen head loss have not been quantified nor has a methodology been formulated for determining this component of the total head loss. The Omaha Public Power District (OPPD) has initiated the chemical effects evaluation task to address sump screen head loss during post-LOCA recirculation. The evaluation will determine if the NRC-EPRI tests bound site-specific post-LOCA parameters, and ensure sufficient head loss margin exists to accommodate chemical effects. The initial approach will utilize margin allocated for chemical effects (bump-up factor). The bump up factor will be validated by testing and/or evaluation data and adjusted as necessary. The chemical effect evaluation approach will be summarized in our September 1, 2005, response to GL 2004-02.